



Got Worms?

Improving Small Ruminant Parasite Control in New England

A USDA Northeast SARE Research and Education Project

Why Worry About Parasites?

Gastrointestinal nematode (GIN) parasites, such as the barber pole worm (*Haemonchus contortus*), are a serious problem, affecting small ruminant production throughout New England and the world. These parasites cause poor growth, anemia, and death in severe infections and limit the ability of producers to raise sheep and goats on pasture.

Growing and widespread resistance to chemical dewormer drugs, coupled with producer wishes to reduce or eliminate reliance on these drugs, has created a need for alternative and integrated parasite control practices.



Barber pole worm, *Haemonchus contortus*.

Project goals and methods

The goal of this project is to improve the parasite control practices of farmers in New England. Direct participation in workshops and hands-on reinforcement of best management practices during on-farm visits has encouraged farmers to adopt several of the following practices:

- Use the FAMACHA© system, body condition scoring and fecal egg counts for detection and selective deworming of infected animals.
- Implement alternative parasite control practices such as mixed species grazing and pasture rotation.
- Factor parasite susceptibility of individual animals into farm breeding programs (increase percentage of parasite resistant animals, increase productivity).



Research has been investigating the anti-parasitic (anthelmintic) potential of the condensed tannins in cranberries and the effect of vitamin E supplementation on the host response to parasite infection.

The project includes a variety of hands-on educational opportunities for small ruminant producers in New England:

- Integrated Parasite Control / FAMACHA Training Workshops and Video
- Comprehensive parasite control survey
- Farm visits
 - Evaluate the flock / herd for parasite infection
 - Determine the level of anthelmintic resistance on the farm
 - Parasite identification



For more information about this project and educational resources and opportunities visit our website <http://web.uri.edu/sheepngoat>.

Project contacts:

University of Rhode Island - Project Coordinator

Katherine Petersson, Ph.D., Assistant Professor
USDA SARE Project Coordinator
401-874-291; kpetersson@uri.edu

Virginia-Maryland Regional College of Veterinary Medicine; Virginia Tech

Anne Zajac, DVM, Ph.D., Parasitologist
540-231-7017; azajac@vt.edu

Holly Burdett, Research Associate,
URI Cooperative Extension
401-874-2249; hburdett@uri.edu



THE
UNIVERSITY
OF RHODE ISLAND



VirginiaTech



UMASS
AMHERST



University of
Connecticut



The
UNIVERSITY
of VERMONT

This material is based on funding from the Northeast Sustainable Agriculture Research and Education Program Project LNE10-300, which is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture. This work is also based on funding from the Rhode Island Agricultural Experiment Station (RI00H-900-INT). Updated March 2014.